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| 09/715,013 | 11/20/2000 | Keunsuk P. Chang | 361752000500 | 7915 |

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MORRISON & FOERSTER LLP
2000 PENNSYLVANIA AVE, NW
SUITE 5500
WASHINGTON, DC 20006-1888

| EXAMINER | |
|---|---|
| NGUYEN, KIMBERLY T | |
| **ART UNIT** | **PAPER NUMBER** |
| 1774 | 10 |

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Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/715,013 | CHANG ET AL. | |
| | Examiner | Art Unit | |
| | Kimberly T. Nguyen | 1774 | |

10

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *06 May 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20 and 23-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20 and 23-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

## DETAILED ACTION

### *Response to Amendment*

This action is in response to the amendment submitted on May 6, 2002.

Acknowledgement is made of the submission of the Declaration of Keunsuk P. Chang. submitted on 5/6/02.

### *Claim Rejections - 35 USC § 112*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

Due to Applicants' amendments, the previous rejections based upon 35 USC 112, 2nd paragraph of claims 2, 10, 24, 26 are withdrawn.

### *Claim Rejections - 35 USC § 103*

The previous rejections of claims 1-46 are withdrawn.

**Claims 1-8, 10-16, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955.

Tsuchiya shows a polypropylene film comprising at least one first polypropylene resin layer (first polyolefin resin layer and heat sealable or winding layers) comprising silica and hydroxy-fatty acid glyceride (adhesion enhancer) (column 4, lines 16-22), at least one second polypropylene layer comprising a discharge-treated surface (claim 3) and ethylene/propylene/butene-1 copolymer, and an aluminum layer vacuum deposited on the second polypropylene layer which comprises an optical density of from 0.5 to 5.0 and a thickness of 10-500nm (column 5, lines 1-21). Tsuchiya shows that the polyolefin layers comprise an antiblock component of aluminosilicate (column 8, lines 61-63) and that the polyolefin layers can be 3.5μm, 16.5μm, and 20μm (column 8, line 37 and column 9, lines 13-16). Tsuchiya shows that

the polyolefin layers are treated with corona discharge in a $CO_2$ or $N_2$ atmosphere (column 6, lines 1-6).

Though Tsuchiya shows that the outer surface of the first polypropylene layer has a nitrogen atom number/carbon atom number ratio of from 0.005 to 0.05 (column 4, lines 59-67), Tsuchiya does not show that the first polyolefin layer comprises at least about 0.3% nitrogen functional groups as in instant claims 1 and 3. Though Tsuchiya shows that the polypropylene layers comprise 0.05 parts by weight of aluminosilicate, Tsuchiya does not show the percentages by weight as in instant claim 7. However, such percentages of nitrogen functional groups and aluminosilicate are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of such percentages, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. percentages) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the adhesiveness and slip and anti-blocking levels of the film. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitation of the percentages of the nitrogen functional groups and aluminosilicate since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Kurokawa et al., U.S. Pat. No. 5,698,317.

Tsuchiya is relied upon as above for claims 1-3. Tsuchiya does not show that the first polypropylene resin layer comprises a crystalline polypropylene or matter layer of a block copolymer and one or more other polymers with a roughened surface as in instant claim 9. Kurokawa shows a laminate film comprising a polypropylene resin layer, an aluminum metal layer, and a heat seal layer or wrapping layer wherein the heat seal or wrapping layers comprise block copolymers of polypropylene and one or more other polymers whose surfaces are roughened and matted (column 5, lines 18-26). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a winding layer as in instant claim 9 because it is known that such a winding layer component along with roughened or matted surfaces have good slip factors and improved anti-blocking properties in packaging films.

Though Tsuchiya shows that the outer surface of the first polypropylene layer has a nitrogen atom number/carbon atom number ratio of from 0.005 to 0.05 (column 4, lines 59-67), Tsuchiya does not show that the first polyolefin layer comprises at least about 0.3% nitrogen functional groups as in instant claims 1 and 3. However, such percentages of nitrogen functional groups are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of such percentages, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. percentages) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the adhesiveness of the film. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with

the limitation of the percentages of the nitrogen functional groups since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claims 17-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Kurokawa et al., U.S. Pat. No. 5,698,317.

Tsuchiya is relied upon as above for claims 3 and 14. Tsuchiya does not show that the additives of adhesion enhancer comprise petroleum or terpene resins as in instant claims 17 nor does Tsuchiya show that the additive comprises 5 to 30% by weight of the second polyolefin layer as in instant claim 18. Kurokawa shows a laminate film comprising a polypropylene resin layer, an aluminum metal layer, and a heat seal layer or wrapping layer wherein the polypropylene layers comprise additives of petroleum or terpene resins in an amount of about 5-30% of the resin layer (column 2, lines 50-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include petroleum or terpene resins in the concentrations as in the instant invention because these are known to enhance metal adhesion, lubricity, or viscosity of the layers (column 3, lines 1-5).

Though Tsuchiya shows that the outer surface of the first polypropylene layer has a nitrogen atom number/carbon atom number ratio of from 0.005 to 0.05 (column 4, lines 59-67), Tsuchiya does not show that the first polyolefin layer comprises at least about 0.3% nitrogen functional groups as in instant claim 3. However, such percentages of nitrogen functional groups are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of such percentages, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine

experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. percentages) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the adhesiveness of the film. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitation of the percentages of the nitrogen functional groups since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claims 19 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Tanizaki et al., U.S. Pat. No. 5,998,039.

Tsuchiya is relied upon as above for claims 3 and 14. Though Tsuchiya shows that the polyolefin layers comprise an antiblock component of aluminosilicate (column 8, lines 61-63), Tsuchiya does not show the wax additives in about 1 to 15% by weight as in instant claims 19 and 20. Tanizaki shows a food packaging polypropylene film wherein the film contains additives such as lubricants of polyethylene waxes (column 24, line 30 to column 26, line 48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the lubricant waxes in the same concentrations as in the instant invention in the film of Tsuchiya since it is known that such waxes provide desirable slip properties to polypropylene layers in food packaging products.

Though Tsuchiya shows that the outer surface of the first polypropylene layer has a nitrogen atom number/carbon atom number ratio of from 0.005 to 0.05 (column 4, lines 59-67), Tsuchiya does not show that the first polyolefin layer comprises at least about 0.3% nitrogen

functional groups as in instant claim 3. However, such percentages of nitrogen functional groups are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of such percentages, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. percentages) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the adhesiveness of the film. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitation of the percentages of the nitrogen functional groups since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claim 24** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Yokoyama et al., U.S. Pat. No. 5,939,205 in further view of Akao et al., U.S. Pat. No. 5,492,741.

Tsuchiya is relied upon as above for claims 1, 2, and 3. Tsuchiya does not show that the metal layer comprises the aluminum oxide and aluminum-enriched layers of instant claim 24. Yokoyama shows a gas barrier resin film comprising a polyamide film and a laminate of two or more layers of aluminum and aluminum oxide used for food packaging (column 6, lines 11-21). Yokoyama shows that the metal layers have thicknesses of 10-5000Å (column 6, lines 22-27). Akao shows a packaging material comprising polypropylene layers and a metal layer of

aluminum, its alloys, and any other metal capable of metallizing with a purity of aluminum being not less than 95% with a thickness of 55 to 1200Å (column 6, lines 41-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make multiple aluminum and aluminum oxide layers with the thicknesses, purity, and arrangement as in the instant invention because such thicknesses and concentrations of aluminum are effective for the physical strength, light-shielding ability, antistatic property, moistureproofness, cost, and quality of the packaging film (column 6, lines 61-64 of Akao).

Though Tsuchiya shows that the outer surface of the first polypropylene layer has a nitrogen atom number/carbon atom number ratio of from 0.005 to 0.05 (column 4, lines 59-67), Tsuchiya does not show that the first polyolefin layer comprises at least about 0.3% nitrogen functional groups as in instant claims 1 and 3. However, such percentages of nitrogen functional groups are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of such percentages, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. percentages) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the adhesiveness of the film. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitation of the percentages of the nitrogen functional groups since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claims 25-32, 34-40, and 45** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Yokoyama et al., U.S. Pat. No. 5,939,205.

Tsuchiya shows a polypropylene film comprising at least one first polypropylene resin layer (first polyolefin resin layer and heat sealable or winding layers) comprising silica and hydroxy-fatty acid glyceride (adhesion enhancer) (column 4, lines 16-22), at least one second polypropylene layer comprising a discharge-treated surface (claim 3) and ethylene/propylene/butene-1 copolymer, and an aluminum layer vacuum deposited on the second polypropylene layer which comprises an optical density of from 0.5 to 5.0 and a thickness of 10-500nm (column 5, lines 1-21). Tsuchiya shows that the polyolefin layers comprise aluminosilicate (antiblock agent) (column 8, lines 61-63) and that the polyolefin layers can be 3.5μm, 16.5μm, and 20μm (column 8, line 37 and column 9, lines 13-16). Tsuchiya shows that the polyolefin layers are treated with corona discharge in a $CO_2$ or $N_2$ atmosphere (column 6, lines 1-6).

Though Tsuchiya shows that the polypropylene layers comprise 0.05 parts by weight of aluminosilicate, Tsuchiya does not show the percentages by weight of the aluminosilicate as in instant claim 31. Though Tsuchiya shows that the metal film is formed such that if it is effective for bonding and printing and is valuable for use as an oxygen-barrier film, Tsuchiya does not show the barrier durability under 9% elongation of 46.5 $cc/m_2/day$ or less as in instant claim 25 and 27. However, such percentages of aluminosilicate and levels of barrier durability and oxygen transmission are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of these ranges, absent a showing of unexpected results, it is

obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. ranges) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the amount of oxygen or vapor transmission and anti-blocking level. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitations of the percentages and ranges since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claim 33** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Kurokawa et al., U.S. Pat. No. 5,698,317.

Tsuchiya is relied upon as above for claims 25, 26, and 27. Tsuchiya does not show that the first polypropylene resin layer comprises a crystalline polypropylene or matter layer of a block copolymer and one or more other polymers with a roughened surface as in instant claim 33. Kurokawa shows a laminate film comprising a polypropylene resin layer, an aluminum metal layer, and a heat seal layer or wrapping layer wherein the heat seal or wrapping layers comprise block copolymers of polypropylene and one or more other polymers whose surfaces are roughened and matted (column 5, lines 18-26). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a winding layer as in instant claim 33 because it is known that such a winding layer component along with roughened or matted surfaces have good slip factors and improved anti-blocking properties in packaging films.

Though Tsuchiya shows that the metal film is formed such that if it is effective for bonding and printing and is valuable for use as an oxygen-barrier film, Tsuchiya does not show the barrier durability under 9% elongation of 46.5 $cc/m_2/day$ or less as in instant claim 25 and 27. However, such percentages of aluminosilicate and levels of barrier durability and oxygen transmission are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of these ranges, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. ranges) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the amount of oxygen or vapor transmission and anti-blocking level. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitations of the percentages and ranges since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claims 41-42** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Kurokawa et al., U.S. Pat. No. 5,698,317.

Tsuchiya is relied upon as above for claims 27 and 38. Tsuchiya does not show that the additives of adhesion enhancer comprise petroleum or terpene resins as in instant claim 41 nor does Tsuchiya show that the additive comprises 5 to 30% by weight of the second polyolefin layer as in instant claim 42. Kurokawa shows a laminate film comprising a polypropylene resin layer, an aluminum metal layer, and a heat seal layer or wrapping layer wherein the

polypropylene layers comprise additives of petroleum or terpene resins in an amount of about 5-30% of the resin layer (column 2, lines 50-53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include petroleum or terpene resins in the concentrations as in the instant invention because these are known to enhance metal adhesion, lubricity, or viscosity of the layers (column 3, lines 1-5).

Though Tsuchiya shows that the metal film is formed such that if it is effective for bonding and printing and is valuable for use as an oxygen-barrier film, Tsuchiya does not show the barrier durability under 9% elongation of 46.5 $cc/m_2/day$ or less as in instant claim 27. However, such percentages of aluminosilicate and levels of barrier durability and oxygen transmission are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of these ranges, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. ranges) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the amount of oxygen or vapor transmission and anti-blocking level. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitations of the percentages and ranges since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claims 43 and 44** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Tanizaki et al., U.S. Pat. No. 5,998,039.

Tsuchiya is relied upon as above for claims 27 and 38. Though Tsuchiya shows that the polyolefin layers comprise an antiblock component of aluminosilicate (column 8, lines 61-63), Tsuchiya does not show the wax additives in about 1 to 15% by weight as in instant claims 19 and 20. Tanizaki shows a food packaging polypropylene film wherein the film contains additives such as lubricants of polyethylene waxes (column 24, line 30 to column 26, line 48). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the lubricant waxes in the same concentrations as in the instant invention in the film of Tsuchiya since it is known that such waxes provide desirable slip properties to polypropylene layers in food packaging products.

Though Tsuchiya shows that the metal film is formed such that if it is effective for bonding and printing and is valuable for use as an oxygen-barrier film, Tsuchiya does not show the barrier durability under 9% elongation of 46.5 $cc/m_2/day$ or less as in instant claim 27. However, such percentages of aluminosilicate and levels of barrier durability and oxygen transmission are properties which can be easily determined by one of ordinary skill in the art. With regard to the limitation of these ranges, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. ranges) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the amount of oxygen or vapor transmission and anti-blocking level. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitations of the percentages and ranges since it has been held that

discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

**Claim 46** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya et al., U.S. Pat. No. 5,137,955 in view of Yokoyama et al., U.S. Pat. No. 5,939,205 in further view of Akao et al., U.S. Pat. No. 5,492,741.

Tsuchiya is relied upon as above for claims 25, 26, or 27. Tsuchiya does not show that the metal layer comprises the aluminum oxide and aluminum-enriched layers of instant claim 24. Yokoyama shows a gas barrier resin film comprising a polyamide film and a laminate of two or more layers of aluminum and aluminum oxide used for food packaging (column 6, lines 11-21). Yokoyama shows that the metal layers have thicknesses of 10-5000Å (column 6, lines 22-27). Akao shows a packaging material comprising polypropylene layers and a metal layer of aluminum, its alloys, and any other metal capable of metallizing with a purity of aluminum being not less than 95% with a thickness of from 55 to 1200Å (column 6, lines 41-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make multiple aluminum and aluminum oxide layers with the thicknesses, purity, and arrangement as in the instant invention because such thicknesses and concentrations of aluminum are effective for the physical strength, light-shielding ability, antistatic property, moistureproofness, cost, and quality of the packaging film (column 6, lines 61-64 of Akao).

Though Tsuchiya shows that the metal film is formed such that if it is effective for bonding and printing and is valuable for use as an oxygen-barrier film, Tsuchiya does not show the barrier durability under 9% elongation of 46.5 $cc/m_2/day$ or less as in instant claims 25 and 27. However, such levels of barrier durability and oxygen transmission are properties which

can be easily determined by one of ordinary skill in the art. With regard to the limitation of these ranges, absent a showing of unexpected results, it is obvious to modify the conditions of a composition because they are merely the result of routine experimentation. The experimental modification of prior art in order to optimize operation conditions (e.g. ranges) fails to render claims patentable in the absence of unexpected results. All of the aforementioned limitations are result effective as they control the amount of oxygen or vapor transmission. As such, they are optimizable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the laminate film with the limitations of the percentages and ranges since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

***Response to Arguments***

Applicant's arguments with respect to claims 1-20 and 23-46 have been considered but are moot in view of the new ground(s) of rejection. Kurokawa et al. and Tanizaki et al. are still used in the rejection of the claims to show the petroleum and terpene resins and lubricant waxes.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly T. Nguyen whose telephone number is (703) 308-8176. The examiner can normally be reached on Monday to Friday, except on every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Kimberly T. Nguyen
Examiner
July 11, 2002

CYNTHIA H. KELLY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700